Amendment to the Claims:

Please withdraw claims 19-22 as follows:

1. (Original) An aircraft comprising:

a fuselage having a passenger cabin;

a jet engine configured to provide propulsive thrust to the aircraft;

an electric generator operably coupled to the jet engine and configured to receive shaft power from the jet engine; and

an environmental control system including at least one compressor motor configured to receive electric power from the electric generator to provide outside air to the passenger cabin in the absence of bleed air from the jet engine.

2. (Original) The aircraft of claim 1, further comprising:

a wing extending outwardly from the fuselage; and

an electrothermal wing ice protection system configured to at least reduce the formation of ice on a portion of the wing in the absence of bleed air from the jet engine, the electrothermal wing ice protection system configured to receive electric power from the electric generator.

3. (Original) The aircraft of claim 1, further comprising:

a wing extending outwardly from the fuselage; and

an electromechanical wing ice protection system configured to at least reduce the formation of ice on a portion of the wing in the absence of bleed air from the jet engine, the electromechanical wing ice protection system configured to receive electric power from the electric generator.

4. (Original) The aircraft of claim 1, further comprising:

a wing extending outwardly from the fuselage; and

a wing ice protection system configured to at least reduce the formation of ice on a portion of the wing in the absence of bleed air from the jet engine, the

wing ice protection system configured to receive electric power from the electric generator in a cycled manner.

5. (Original) The aircraft of claim 1, further comprising:

a hydraulically actuated landing gear extendable downwardly from the aircraft;

a hydraulic pump configured to provide hydraulic power to the landing gear; and

an electric motor operably coupled to the hydraulic pump and configured to receive electric power from the electric generator to drive the hydraulic pump in the absence of pneumatic power from the jet engine.

6. (Original) The aircraft of claim 1 wherein the electric generator is a starter/generator operable as a synchronous motor to start the jet engine in the absence of pneumatic power.

7. (Original) The aircraft of claim 1 wherein the electric generator is a starter/generator operable as a synchronous motor to start the jet engine, and wherein the jet engine is configured to be started by the starter/generator in the absence of a pneumatically operable starter turbine.

8. (Original) The aircraft of claim 1 wherein the electric generator operably coupled to the jet engine is a first electric generator, and wherein the aircraft further comprises:

an auxiliary power unit; and

a second electric generator operably coupled to the auxiliary power unit and configured to receive shaft power from the auxiliary power unit, wherein the at least one compressor motor of the environmental control system is configured to receive electric power from the second electric generator to provide outside air to the passenger cabin in the absence of compressed air from the auxiliary power unit.

9. (Original) The aircraft of claim 1 wherein the compressor motor of the environmental control system is an adjustable speed motor configured to vary compressor speed in response to changes in pressurization demands of the fuselage.

10. (Original) The aircraft of claim 1, further comprising:

a fuel tank; and

a variable-speed fuel pump configured to transfer fuel from the fuel tank to the jet engine at variable speeds based on the demand for fuel by the jet engine, wherein the fuel pump is configured to receive electric power from the electric generator.

11. (Original) The aircraft of claim 1 wherein the environmental control system further comprises at least one variable speed fan configured to flow air to the passenger cabin at a plurality of flow rates in response to changes in at least one of flow rate and pressurization demands of the fuselage.

12. (Original) An aircraft comprising:

a fuselage;

a wing extending outwardly from the fuselage;

a jet engine configured to provide propulsive thrust to the aircraft;

an electric generator operably coupled to the jet engine and configured to receive shaft power from the engine;

an environmental control system configured to provide conditioned air to at least a portion of the fuselage in the absence of bleed air from the jet engine, the environmental control system including at least one fan motor configured to receive electric power from the electric generator; and

a wing ice protection system configured to at least reduce the formation of ice on a portion of the wing, the wing ice protection system configured to receive electric power from the electric generator in the absence of bleed air from the jet engine.

13. (Original) The aircraft of claim 12 wherein the electric generator operably coupled to the jet engine is a first electric generator, and wherein the aircraft further comprises:

an auxiliary power unit; and

a second electric generator operably coupled to the auxiliary power unit and configured to receive shaft power from the auxiliary power unit, wherein the wing ice protection system is configured to receive electric power from the second electric generator in the absence of compressed air from the auxiliary power unit.

14. (Original) The aircraft of claim 12 wherein the wing ice protection system is an electrothermal system including at least one heating element positioned at least proximate to an interior portion of the wing, and wherein the heating element can be energized with electric power from the electric generator to warm the portion of the wing to at least reduce the formation of ice on the portion of the wing.

15. (Original) The aircraft of claim 12 wherein the wing ice protection system is an electromechanical system including at least one mechanical actuator positioned at least proximate to an interior portion of the wing, and wherein the actuator can be activated with electric power from the electric generator to vibrate the portion of the wing to at least reduce the formation of ice on the portion of the wing.

16. (Original) The aircraft of claim 12, further comprising a hydraulically actuated landing gear system configured to movably support at least a portion of the aircraft on the ground, the landing gear system including a hydraulic pump driven by an electric motor in the absence of bleed air from the jet engine, wherein the electric motor is configured to receive electric power from the electric generator.

17. (Original) The aircraft of claim 12 wherein the aircraft is a commercial passenger carrier and the fuselage includes a passenger cabin and a cargo hold.

18. (Original) An aircraft comprising:

a fuselage;

a jet engine configured to provide propulsive thrust to the aircraft;

an electric generator operably coupled to the jet engine and configured to receive shaft power from the engine;

an environmental control system configured to provide conditioned air to at least a portion of the fuselage in the absence of bleed air from the jet engine, the environmental control system including at least one fan motor configured to receive electric power from the electric generator; and

a hydraulically actuated landing gear configured to movably support at least a portion of the aircraft on the ground, the landing gear receiving hydraulic power from a hydraulic pump driven by an electric motor in the absence of bleed air from the jet engine, the electric motor receiving electric power from the electric generator.

19. (Withdrawn) The aircraft of claim 18 wherein the electric generator operably coupled to the jet engine is a DC generator, and wherein the aircraft further comprises:

an AC generator operably coupled to the jet engine and configured to receive shaft power from the jet engine;

a wing extending outwardly from the fuselage; and

an electrothermal wing ice protection system configured to at least reduce the formation of ice on a portion of the wing, the electrothermal wing ice protection system configured to receive electric power from the AC generator in the absence of bleed air from the jet engine.

20. (Withdrawn) The aircraft of claim 18 wherein the electric generator operably coupled to the jet engine is a DC generator, wherein the aircraft further comprises an AC generator operably coupled to the jet engine and configured to receive shaft power from the jet engine, and further wherein the AC generator is operable as a synchronous motor to start the jet engine in the absence of pneumatic power.

21. (Withdrawn) The aircraft of claim 18 wherein the electric generator operably coupled to the jet engine is a DC generator, and wherein the aircraft further comprises:

an AC generator operably coupled to the jet engine and configured to receive shaft power from the jet engine; and

an AC-to-DC conversion device configured to receive AC power from the AC generator and direct DC power to the fan motor of the environmental control system.

22. (Withdrawn) The aircraft of claim 18 wherein the electric generator operably coupled to the jet engine is a DC generator, and wherein the aircraft further comprises:

an AC generator operably coupled to the jet engine and configured to receive shaft power from the jet engine;

an AC-to-DC conversion device configured to receive AC power from the AC generator; and

a motor controller configured to receive DC power from the AC-to-DC conversion device and direct the DC power to the fan motor of the environmental control system, wherein the motor controller is further configured to selectively direct DC power from a source other than the AC generator to the AC generator to operate the AC generator as a synchronous motor to start the jet engine in the absence of pneumatic power.

23. (Original) An aircraft comprising:

a wing;

a jet engine configured to provide propulsive thrust to the aircraft;

an electric generator operably coupled to the jet engine and configured to receive shaft power from the engine;

a wing ice protection system configured to at least reduce the formation of ice on a portion of the wing, the wing ice protection system configured to receive electric power from the electric generator in the absence of bleed air from the jet engine; and

a hydraulically actuated landing gear system configured to movably support at least a portion of the aircraft on the ground, the landing gear system including a hydraulic pump driven by an electric motor in the absence of bleed air from the jet engine, wherein the electric motor is configured to receive electric power from the electric generator.

24. (Original) The aircraft of claim 23 wherein the electric generator operably coupled to the jet engine is a first electric generator, and wherein the aircraft further comprises:

an auxiliary power unit; and

a second electric generator operably coupled to the auxiliary power unit and configured to receive shaft power from the auxiliary power unit, wherein the wing ice protection system is configured to receive electric power from the second electric generator in the absence of compressed air from the auxiliary power unit.

25. (Original) The aircraft of claim 23 wherein the wing ice protection system is an electrothermal system including at least one heating element positioned at least proximate to an interior portion of the wing, and wherein the heating element can be energized with electric power from the electric generator to warm the portion of the wing to at least reduce the formation of ice on the portion of the wing.

26. (Original) The aircraft of claim 23 wherein the wing ice protection system is an electromechanical system including at least one mechanical actuator positioned at least proximate to an interior portion of the wing, and wherein the actuator can be activated with electric power from the electric generator to vibrate the portion of the wing to at least reduce the formation of ice on the portion of the wing.

27. (Original) A method for providing conditioned air to a fuselage of an aircraft, the aircraft including a jet engine configured to provide propulsive thrust to the aircraft, the method comprising:

operably coupling an electric generator to the jet engine, the electric generator configured to receive shaft power from the jet engine;

operably coupling an electric motor to a compressor fan to drive the compressor fan, the compressor fan being positioned in flow communication with the fuselage; and

providing electric power from the electric generator to the electric motor to drive the compressor fan and flow air from outside the fuselage into the fuselage in the absence of bleed air from the jet engine.

28. (Original) The method of claim 27, further comprising:

positioning a resistive heater downstream of the compressor fan; and

conducting electric power from the electric generator to the resistive heater to warm the outside air before the outside air flows into the fuselage.

29. (Original) The method of 27 wherein operably coupling an electric motor to the compressor fan includes operably coupling an adjustable speed electric motor to the compressor fan, wherein the method further comprises modulating the speed of the electric motor in response to changes in the pressurization requirements of the fuselage.

30. (Original) The method of 27 wherein operably coupling an electric motor to the compressor fan includes operably coupling an adjustable speed electric motor to the compressor fan, wherein the method further comprises modulating the speed of the electric motor in response to changes in the temperature requirements of the fuselage.

31. (Original) On a transport aircraft having a fuselage, a wing extending outwardly from the fuselage, and a jet engine for providing propulsive thrust, a method for providing secondary power from the jet engine to a plurality of aircraft systems

including an environmental control system, a wing ice protection system, and a landing gear system, the method for providing secondary power comprising:

operably coupling an electric generator to the jet engine, the electric generator configured to receive shaft power from the jet engine;

providing electric power from the electric generator to a fan motor of the environmental control system, the environmental control system configured to provide conditioned air to at least a portion of the fuselage in the absence of bleed air from the jet engine;

providing electric power from the electric generator to a heating element of the wing ice protection system, the wing ice protection system configured to at least reduce the formation of ice on a portion of the wing in the absence of bleed air from the jet engine; and

providing electric power from the electric generator to an electric-motor driven hydraulic pump of the landing gear system, the hydraulic pump configured to operate a landing gear in the absence of bleed air from the jet engine.

32. (Original) The method of claim 31 wherein the electric generator operably coupled to the jet engine is a first electric generator, and wherein the method further comprises:

installing an auxiliary power unit on the aircraft;

operably coupling a second electric generator to the auxiliary power unit, wherein the second electric generator is configured to receive shaft power from the auxiliary power unit; and

providing electric power from the second electric generator to the fan motor of the environmental control system, the environmental control system configured to provide conditioned air to at least a portion of the fuselage in the absence of compressed air from the auxiliary power unit.

33. (Original) The method of claim 31 wherein the electric generator operably coupled to the jet engine is a first electric generator, and wherein the method comprises:

installing an auxiliary power unit on the aircraft;

operably coupling a second electric generator to the auxiliary power unit, wherein the second electric generator is configured to receive shaft power from the auxiliary power unit; and

providing electric power from the electric generator to the electric motor-driven hydraulic pump of the landing gear system, the hydraulic pump configured to operate a landing gear in the absence of pneumatic power from the auxiliary power unit.

34. (Original) On an aircraft having a fuselage and a jet engine configured to provide propulsive thrust, a system for providing conditioned air to the fuselage, the system comprising:

means for providing outside air to a compressor fan in flow communication with the fuselage;

means for extracting electric power from the jet engine; and

means for providing at least a portion of the electric power to the compressor fan to flow the outside air from the compressor fan into the fuselage of the aircraft in the absence of bleed air from the jet engine.

35. (Original) The system of claim 34, further comprising means for providing at least a portion of the electric power from the electric generator to a heating element of a wing ice protection system, the wing ice protection system configured to at least reduce the formation of ice on a portion of the wing in the absence of bleed air from the jet engine.

36. (Original) The system of claim 34, further comprising means for providing at least a portion of the electric power from the electric generator to an electric motor-driven hydraulic pump of a landing gear system, the hydraulic pump configured to operate a landing gear in the absence of bleed air from the jet engine.

37. (Original) An aircraft comprising:

a fuselage having a passenger cabin;

a jet engine configured to provide propulsive thrust to the aircraft;

an electric generator operably coupled to the jet engine and configured to receive shaft power from the jet engine; and

an environmental control system including at least one compressor motor configured to receive electric power from the electric generator to provide outside air to the passenger cabin, wherein the compressor motor of the environmental control system is an adjustable speed motor configured to vary compressor speed in response to changes in pressurization demands of the fuselage.

38. (Original) The aircraft of claim 37, further comprising:

a wing extending outwardly from the fuselage; and

a wing ice protection system configured to at least reduce the formation of ice on a portion of the wing, the wing ice protection system configured to receive electric power from the electric generator.

39. (Original) The aircraft of claim 37, further comprising:

a hydraulically actuated landing gear extendable downwardly from the aircraft;

a hydraulic pump configured to provide hydraulic power to the landing gear; and

an electric motor operably coupled to the hydraulic pump and configured to receive electric power from the electric generator to drive the hydraulic pump.